T
371
.D75

The Draftsman.

A Chapter on lettering

Cleveland, 1905.

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A

CHAPTER ON LETTERING

With Samples of

Figures, Headings, Initials, Scrolls and Titles.

THE DRAFTSMAN

Price, 25 cents. Cleveland, Ohio

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.D75

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REMARKS.

THE sketches for the following pages were made by Mr. E. H. Browning. Mr. W. E. King, Mr. C. C. Riester, Mr. F. H. Sibley, Mr. J. S. Myers, Mr. W. A. Thompson and the draftsman as noted on the sketches or connected with the magazine credited.

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CLEVELAND, O.
1905

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CLEVELAND, O.

A CHAPTER ON LETTERING.

IT is not so much the idea of instruction as to the forming of letters and figures as in more extensive text-books, as it is to give a collection of alphabets, headings, titles and borders that will aid the student in the arrangement of such things on drawings.

The student will do well to make a collection of engravings, full designs, letterings, comics, figures, initials, tail-pieces, etc., from catalogues, magazines, papers, books,

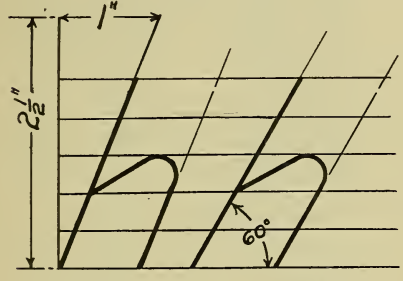


Fig. 1 Fig. 2

etc., and to put them in a scrap book for future use.

Any of the many styles of pens used for writing may be used for free-hand lettering, but the tee-square and ruling pen and compass will be needed for many of the other styles. The pen which is best adapted for a certain piece of work can be determined only by trial. Some draftsmen and artists prefer a Gillott, some a Spencerian, some a ball-pointed, some a stub, and the coarseness of the point and the pressure determines the line.

A new pen should be claaned of the oil coating by dipping in the ink and wiping several times, or by moistening with the tongue. The pen should be wiped clean every time it is laid away, and should not be used in common writing inks, for they will corrode it badly.

Keep the bottle off the drawing, and take the pen to the ink, and carry it carefully to avoid a blot.

Assume an easy position as in writing, and avoid gripping the pen to cramp the fingers.

Never use a blotter on the lettering as one does in writing, but allow the ink time to dry, thus avoiding brown and thin lines. When the flow has been too rapid, and the ink is piled high, tear off a piece of the blotter and bring the tip down to the top of the globule of ink to absorb some of it without spreading it over the paper, as is the case if the blotter is laid flat upon the ink.

The student, and in fact the draftsman, should lay out guide lines for the height and slant of the letters.

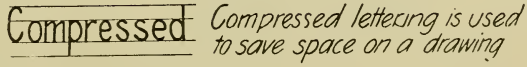


Fig. 3

The Slant of Letters.

It has been suggested by Mr. Reinhardt that a slope of 1 to 2½ (Fig. 1) is sufficient for the stems or down strokes of the letters, and ordinarily an angle of 45° with the horizontal will suffice for the up strokes and the axis of ellipses, excepting that of the letter *O*. The latter angle will have to be increased of course when the lettering is compressed as shown in Fig. 3.

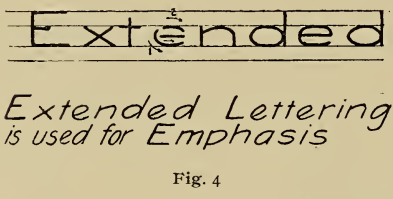


Fig. 4

An angle of 60° with the horizontal (Fig. 2) will make the letter lay over considerable more than in Fig. 1, but still makes a good-looking letter. It is very important that all letters in the same word and sentence have the same inclination.

The Form of Letters.

Almost every curve of the letters and figures of the vertical and inclined types may be considered as embodied in the letter *o* or *O*, so that it would be well for the student to practice on it until he can make it neatly, as indicated in Fig. 5.

Style of Letters.

An easy style of lettering is shown in Fig. 5, and the height may be made as shown in Fig. 6. Divide the body into three and the total height into five parts, except the "t," which should be only four parts.

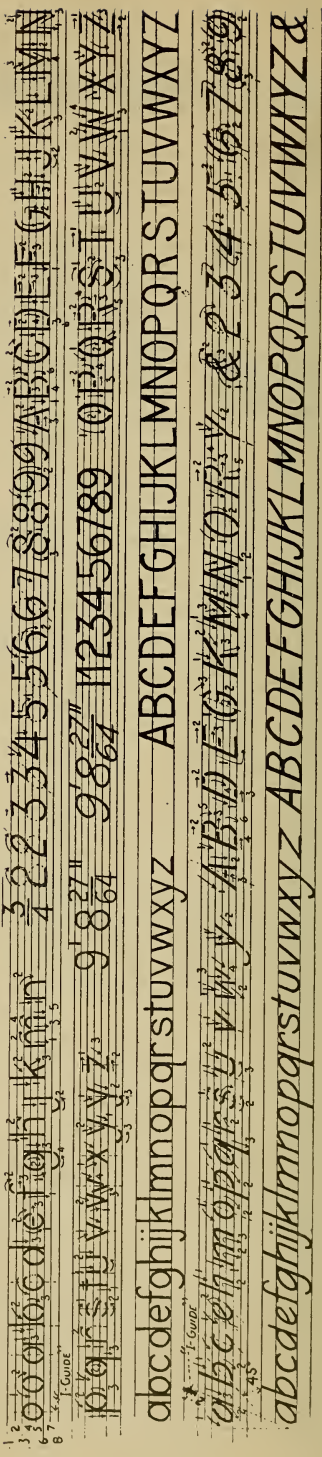


Fig. 5

Printers class the letters such as "a," "b," "c," "l," "o," &c., as "lower case" letters, and "C," "D," "X," "Y" &c. as "caps," or upper case letters. So that a "font" of type is a quantity made up of "upper" and "lower case" letters.

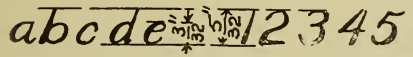


Fig. 6

The practice sheet (Fig. 7) is arranged to go on a sheet 14x19, with border 13″x17″, allowing 1½″ margin at the left and ½″ at the top, bottom and right, leaving room for a title in the lower right hand corner. If some of the lettering is cramped, and the lines do not fill out, simply repeat some of the words or figures.

Following the practice sheet is a plate giving a few "Common Errors in Mechanical Drawing," which will no doubt give suggestions that will be of value to the student.

The Block Type.

On page 8 is another sheet that may be used as a practice sheet, though on much smaller paper, and the block type (p. 6) could be arranged for a class sheet too. (See that the letter J is made right.)

This type is arranged on the basis of five squares high and in most cases four squares wide, except "I," "W" and "M."

By using the compass with centers at the center of the second square from side or top, the rounded type is produced (Fig. 9).

The type shown at the left on page 7 is built up on the body of that on page 6, but appears to show a side and bottom of the letter, this being accomplished by aid of the 45° triangle, going down or up as desired to ½ of the next square. This offset may be blacker, shaded or open, as shown.

Suggestions.

Following these are styles of letters and figures that can be used in various ways, such as headings, titles, etc.

In all cases of lettering it is better for the student if he will sketch in the letters with pencil, and note if the whole lay-out is symmetrical with a center line.

It so often happens that inscriptions, headings and titles are placed "any old way," with no respect to a center line.

This will again be taken up under the heading of "Titles," in another part of this booklet.

a b c d e f g h i j k l m n o p q r s t u v w x y z 1 2 3 4 5 6 7 8 9 0

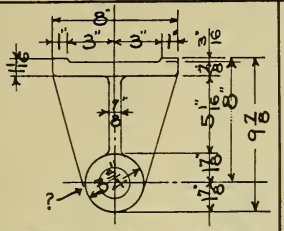
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z I II III IV V VI VII VIII IX X L

The size of this Drawing is to be 14"x18" Outside Dimensions and 13"x17" inside the Border Line Put everything on the plate Exactly as shown except the Figures which indicate the height of the Letters. These are to be Left off &c &c To lay out the plate begin at the left hand border and Measure off $\frac{3}{8}$" of an Inch for a margin. Then Divide the Plate Vertically into spaces 1" wide Put two Lines of letters in each One inch space, the lines to be laid out as follows – The The Bottom of the letters in the lower line of each 1" Space must Coincide with the Division line of the space and the bottom of the Upper line in each one inch space is to be placed $\frac{1}{2}$" above the Division line of the Space. Both Horizontal and Diagonal Guide lines must be drawn before the letters Are put in. The diagonals have a slope of $2\frac{1}{2}$ to 1 as Shown. This gives the slope of the stems. The Ellipses Which form the bottoms of the small Letters Have a slope of 45°. The body of the letter should be $\frac{3}{5}$ of the whole height and the stems of the letters g j p q should extend two fifths of the whole height Below the line. In the first two lines On this plate the Arrows Show the Direction of the strokes. The appearance of a Drawing is often spoiled by Careless lettering. There are three Rules Which it is Necessary to observe in order to letter well. The First rule is to select a simple style of Letter and Always stick to it. A practical letter is one that Can be rapidly and easily Made Freehand. The second rule is Practice. The third rule is more Practice. The type of letter shown on this Plate is recommended as one of the most practical for Ordinary mechanical Drawings its principal advantage Being the speed with which the Letters can be made. Care should be taken to Keep the spacing even, for if the slant is Uniform and the Spacing good the work with look Right even if the Individual letters are not all well made. This style of lettering looks the best When the letters are kept rather Narrow in proportion to the Height and the spacing is Close. The size of the letters here is $\frac{5}{8}$" for the Body, and the stems extend $\frac{1}{16}$" above and below The line. The Capitals are all $\frac{3}{16}$" High. A complete Discussion and description of this Style can be Found in "Reinhardts Lettering for Draftsmen, Engineers and Students", Published by D Van Nostrand Co., New York. Price one dollar. This plate must be penciled in and approved by the Instructor before any ink is put on it. The title, name and date is to be placed in the corner as shown, in a Rectangle $1\frac{1}{2}$"x3" in size. The best pen for this work is a Gillotts 303 which has been well broken in, that is it ought to have been used enough to remove the sharp point and became Flexible.

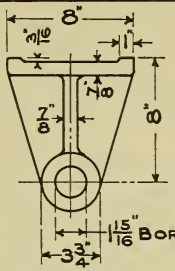
Plate I
Soph. Mechanical Drawing
Name
Date

PRACTICE PLATE. (Fig. 7.)

COMMON ERRORS IN MECHANICAL DRAWING.



SUPERFLUOUS DIMENSIONS POORLY DISPOSED, IMPORTANT ONE OMITTED, NO DISTINCTION IN WEIGHT OF LINES.



PROPERLY DIMENSIONED. CLEAR DISTINCTION.

SIDE VIEW OMITTED.

A BAD LINE.

A GOOD LINE.

WEAKENED BY ERASURE.

A BAD DOTTED LINE

AN AVERAGE ONE

WHICH LINE DOES THE ARROW MEAN?

EITHER WAY O.K.

LETTERING LIKE THIS TAKES UP TOO MUCH VERTICAL SPACE.

Be Careful About Extra Tails On Letters

LETTERING LIKE THIS TOO SMALL AND CROWDED TO SHOW UP WELL. LINES NOT CONNECTED

THIS IS A HURRY UP JOB WITH THE RULING PEN.

Round Writing too Fancy.

Used more in structural than machine work.

PERHAPS THIS DESIGN IS BETTER LIKED.

DON'T SAVE INK. MAKE IT SO IT WILL PRINT WELL.

Dont Mix Styles of Printing. FORGOT HE STARTED VERTICAL.

Shading Adds Nothing.

TWO WAYS OF SAYING THE SAME THING.

DRILL AND TAP FOR 3/4" GAS PIPE. BETTER SAY, 3/4" PIPE TAP.
3/4" CORED HOLES. BETTER SAY, 3/4" CORE. 6" DIA. BORED. SAY, 6" BORE.

ONE RIGHT HAND, MARK B20.
" LEFT " , " B21.
RIGHT HAND ONE IS SHOWN.

BETTER SAY { 1 AS SHOWN. B20. / 1 OPP HAND. B21.

WASTE OF TIME. SLOPPY FAIR.

MAKE WORKING DRAWINGS FOR THE WORKMAN. IF PICTURE DRAWINGS ARE REQUIRED HIRE AN ARTIST.

MAKE TITLES COMPLETE BUT VERY CONCISE.
DON'T DRAW BOLTS UNLESS THEY ARE SPECIAL.
LIFE'S TOO SHORT TO SHOW NUTS IN PLAN.
C.I. = CAST IRON. W.I. = WROUGHT IRON. MAL.I. = MALLEABLE IRON. S.C. = STEEL CASTING. C.R.S. = COLD ROLLED STEEL. MED. ST. = MEDIUM STEEL. ST. = MILD STEEL. T.S. = TOOL STEEL. L.G.T.S. = LOW GRADE TOOL STEEL. M.S. = MACHINERY STEEL. BZ. = BRONZE.

FIG. 8

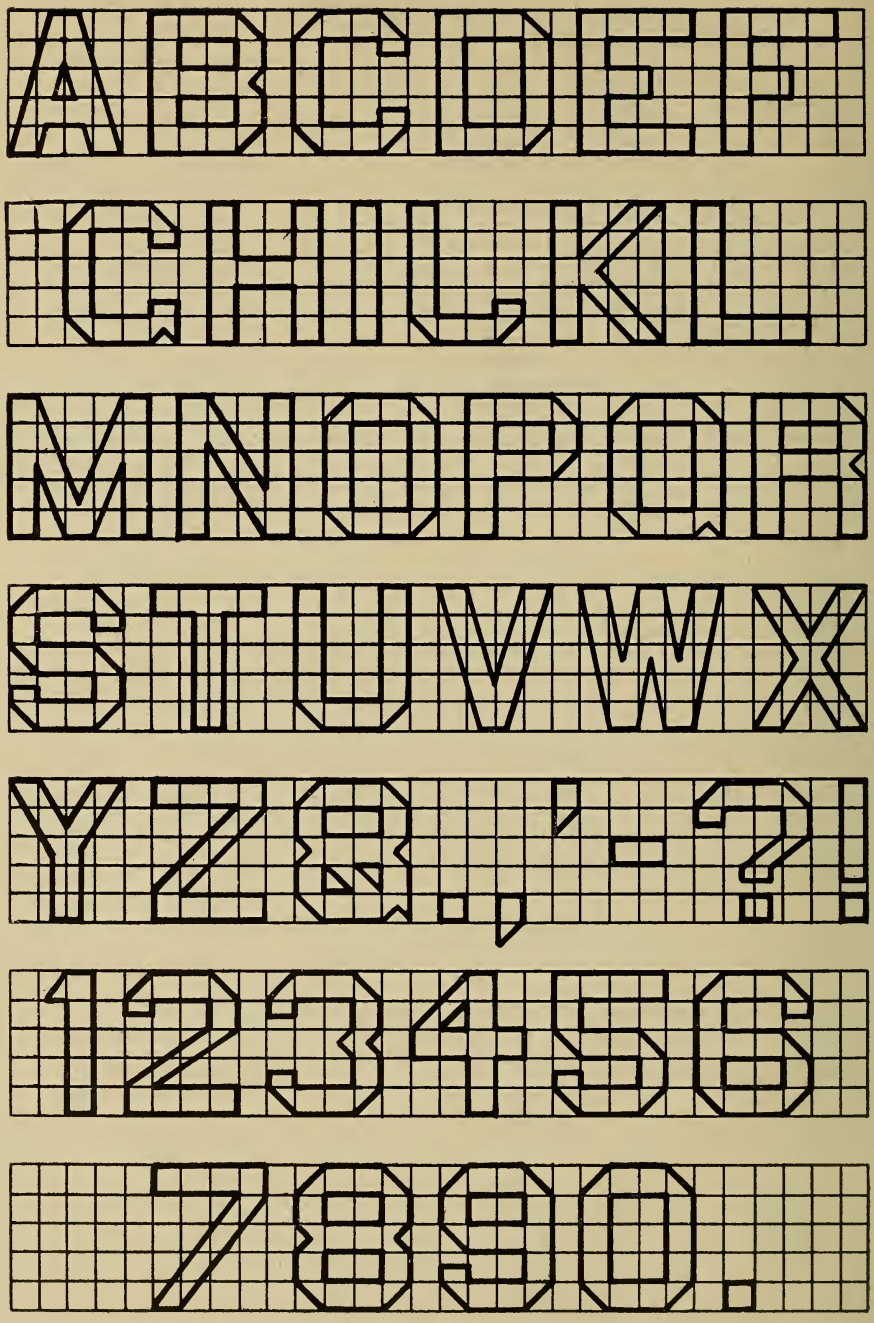
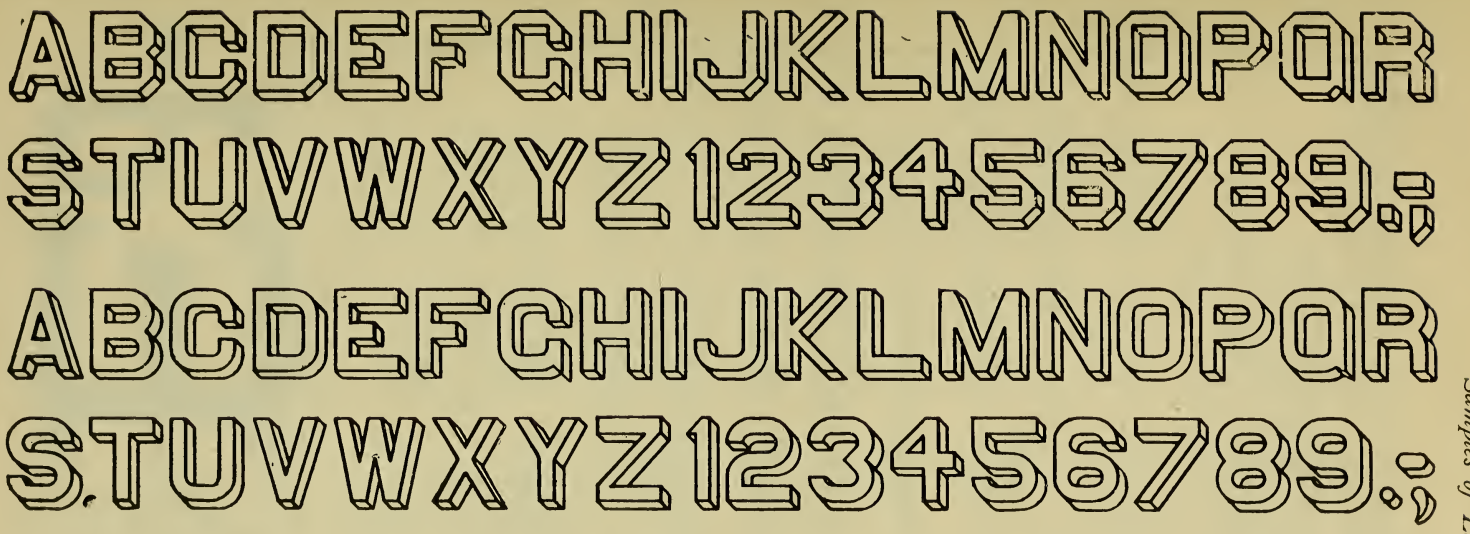
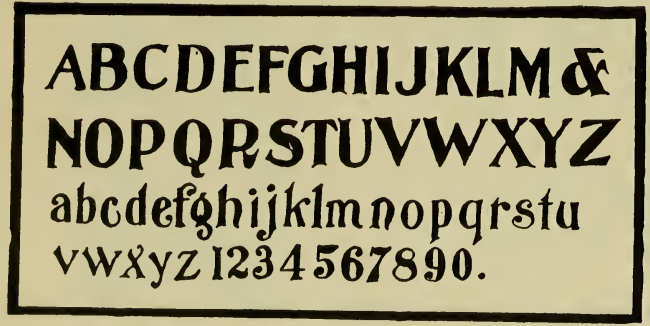


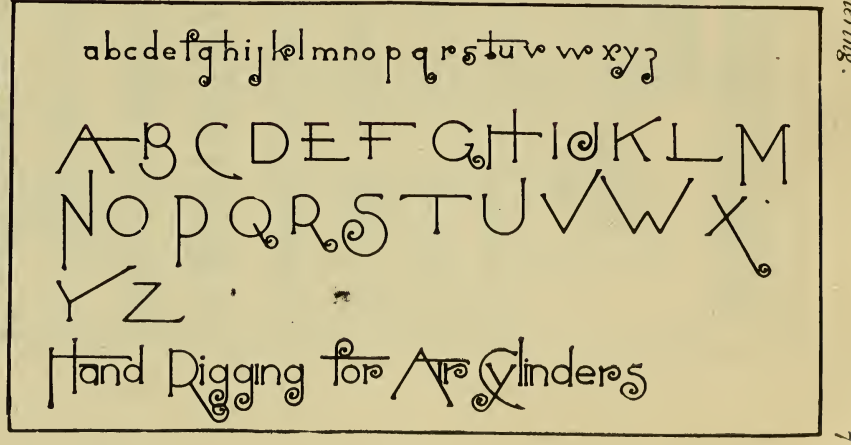
Fig. 9. PLAIN BLOCK LETTERS AND FIGURES. (J is wrong.)

Fig. 10. PLAIN BLOCK LETTERS ROUNDED.





Samples of Lettering.



1 ABCDEFGHIJKLMNQRS
TUVWXYZ

2 ABCDEFGHIJKLMNO
PQRSTUVWXYZ&.,-:;

3 abcdefghijklmnopqrstuvwxyz.

4 *ABCDEFGHIJKLMNOPQ*
RSTUVWXYZ 12345678

5 *abcdefghijklmnopqrstuvwxyz.*

6 ABCDEFGHIJKLMNXYZ.
*OPQRSTUVW*123456789

7 abcdefghijklmnopqrstuvwxyz.

8 *abcdefghijklmnopqrstuvwxyz.*

9 ABCDEFGHIJKLMNOPQRST
UVWXYZ&.1234567890781
abcdefghijklmnopqrstuvwxyz

10 ABCDEFGHIJKLMNOPQRS
TUVWXYZ&1234567890
abcdefghijklmnopqrstuvwxyz

EACH ONE ON HEAVY DRAWING PAPER.
ABOUT SEVEN BY ELEVEN INCHES

For lettering working drawings.

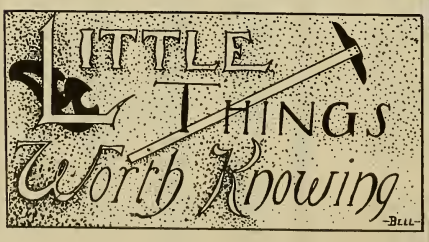
PROBLEM PLATE

INSTRUMENTAL AND

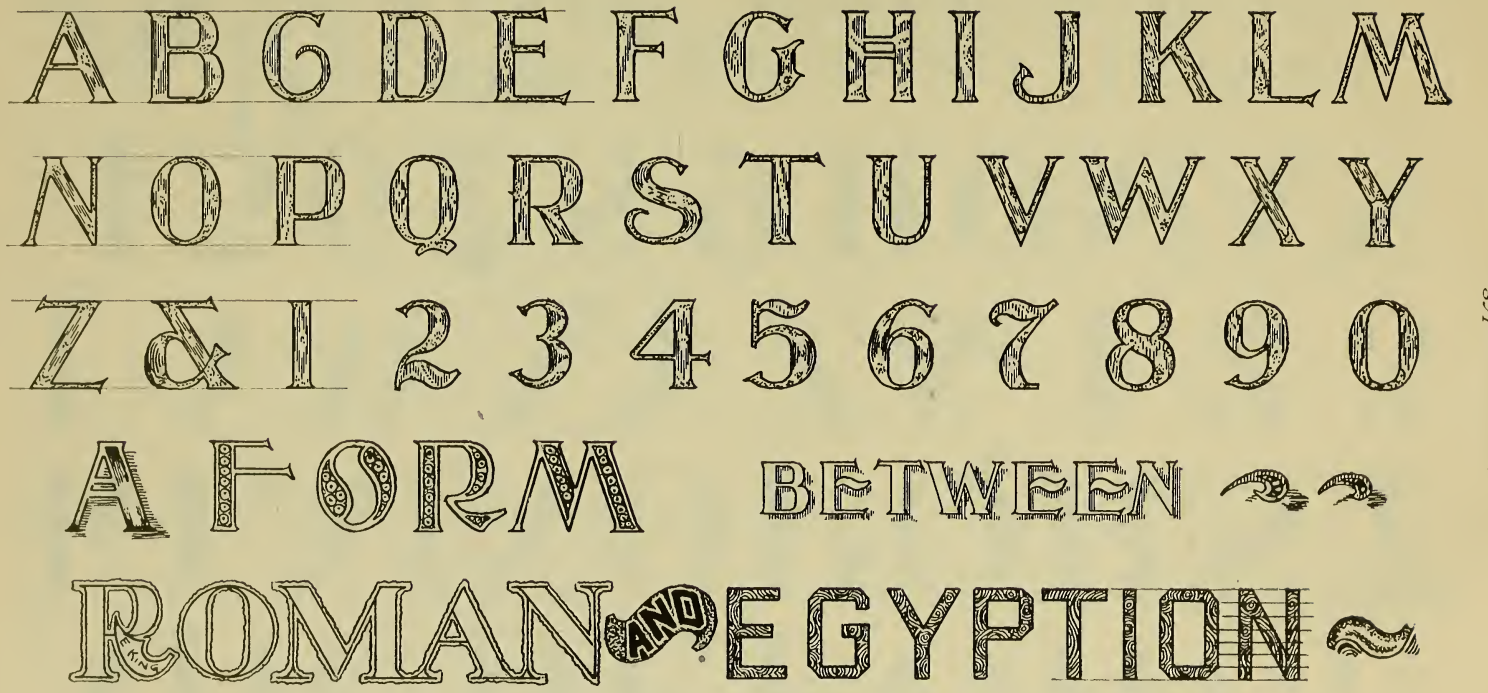
FREE HAND

LETTRING.

PROBLEM 44.

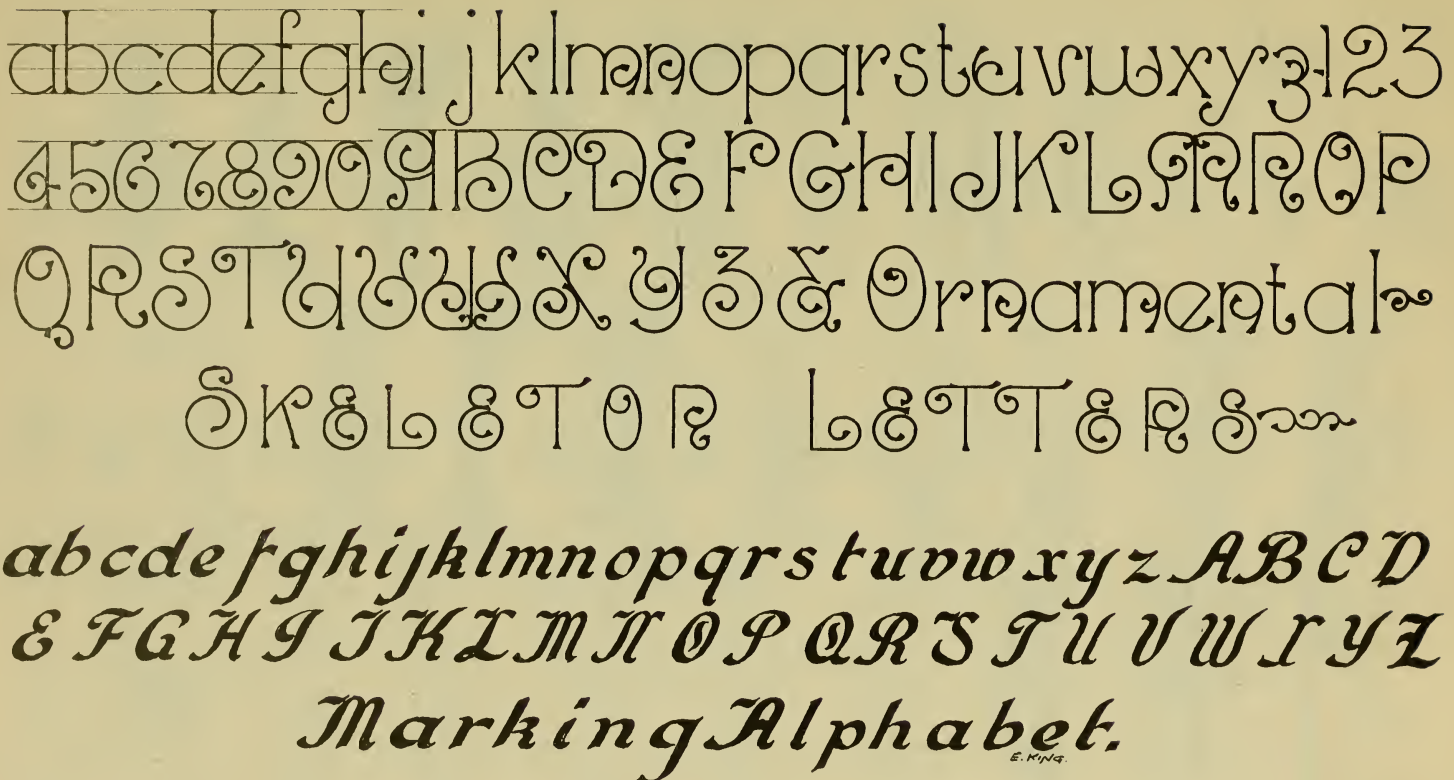


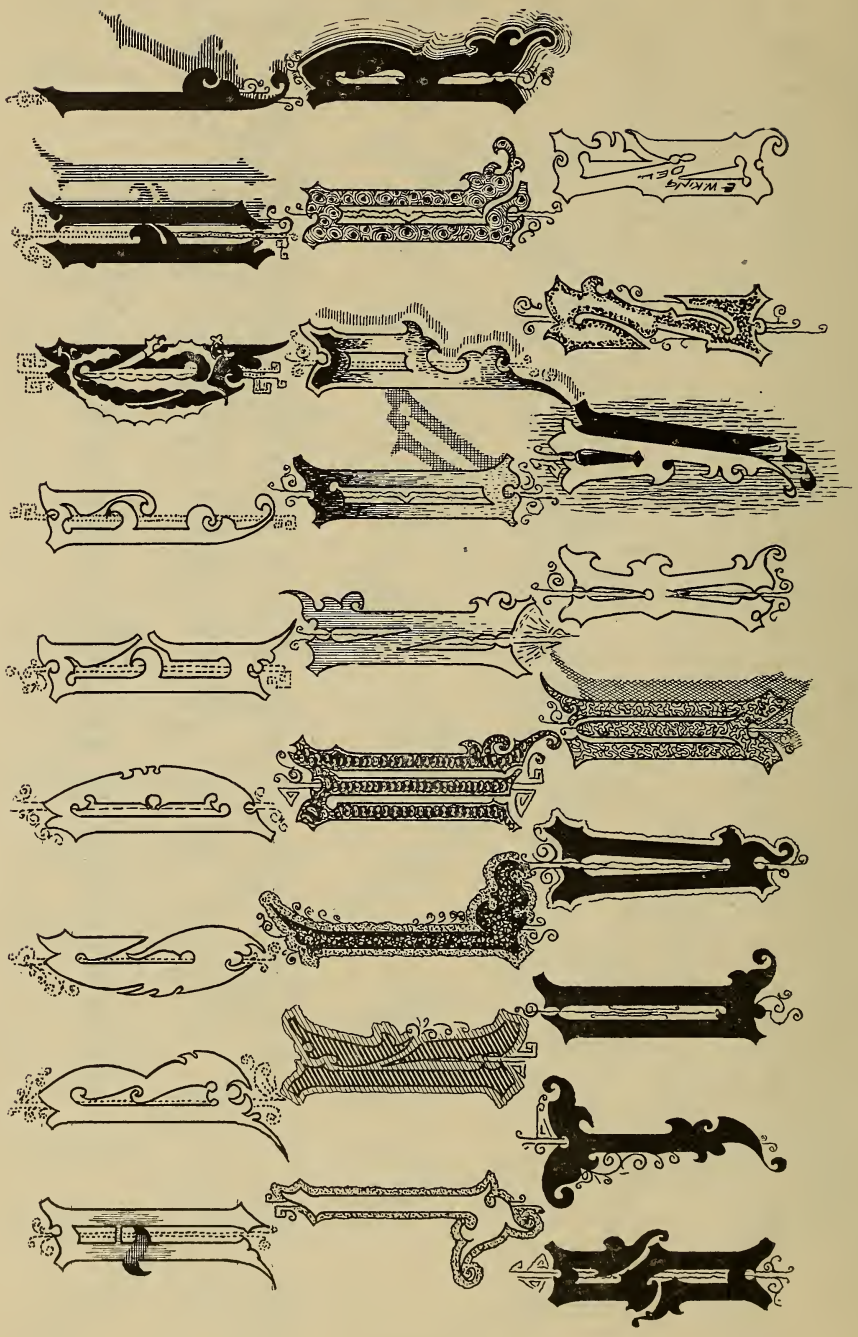
Ed-

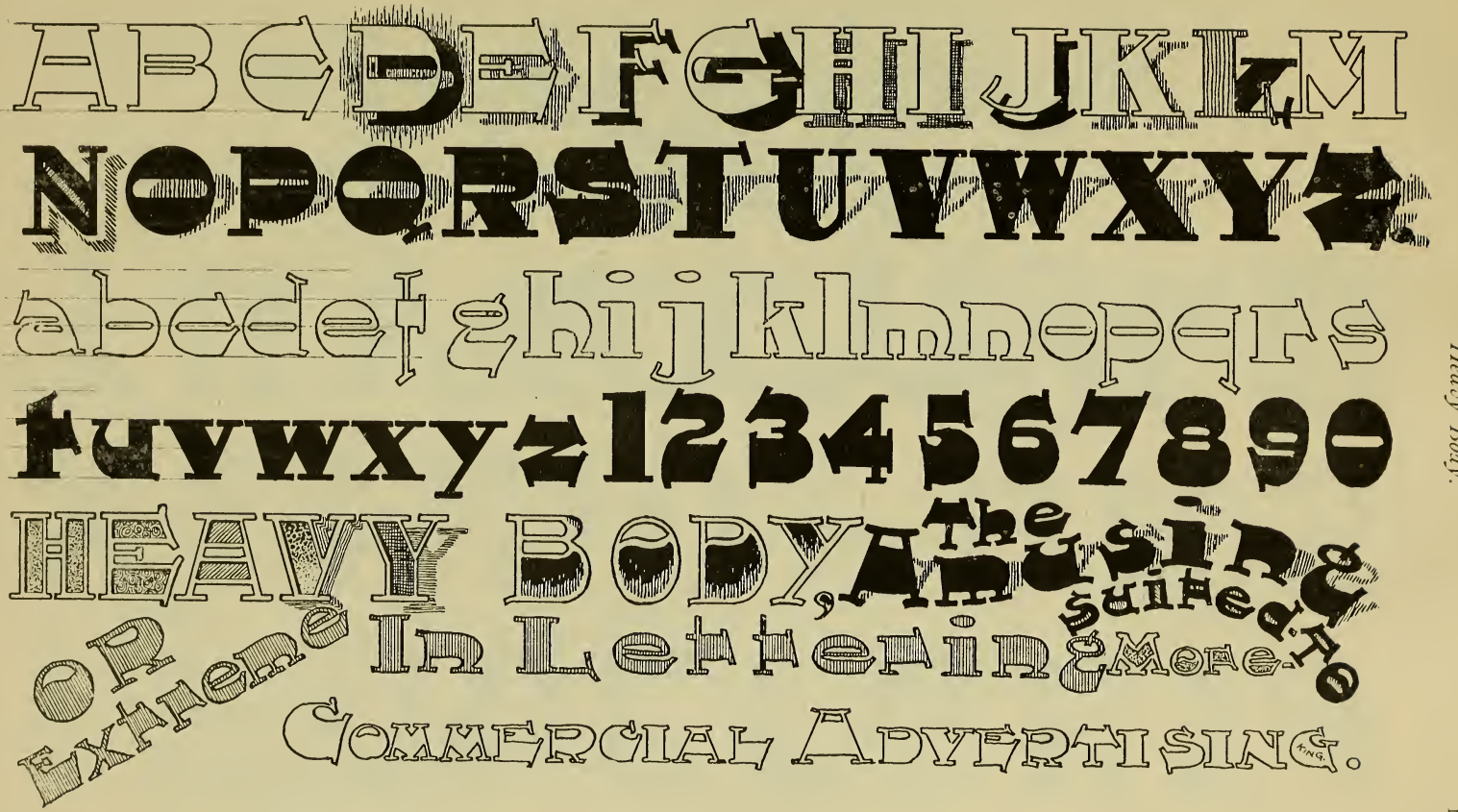


This and the styles on the next following pages are samples to be used in headings, titles, etc.

ABCDEFGHIJ?
KLMNOPQRST
UVWXYZ&1 23
456789 ROMAN
THE OLD RELIABLE FOR
Plainness, Delicacy,
Strength & Beauty.
E KING.


abcdefghi jklmnopqrstuvwxy3-123
4567890ABCDEFGHIJKLMNOP
QRSTUVWXYZ& Ornamental
SKELETON LETTERS
abcdefghijklmnopqrstuvwxyzABCD
&FGHIJKLMNOPQRSTUVWXYZ
Marking Alphabet.
E. KING.

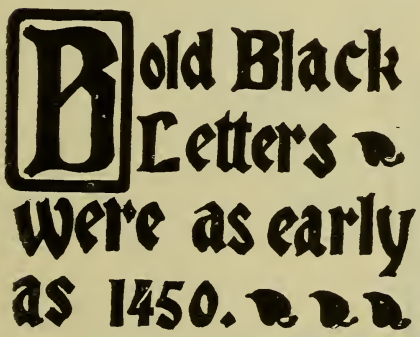


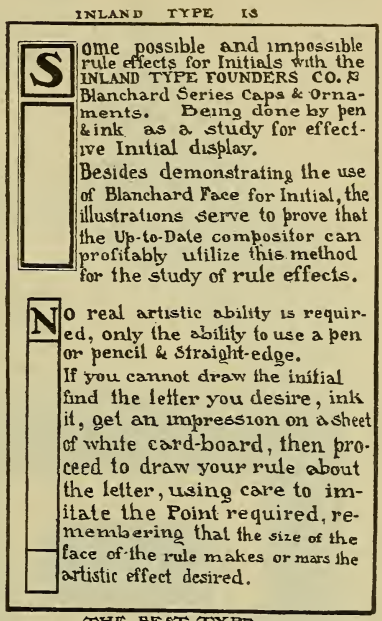

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklmnopqrs
tuvwxyz1234567890
HEAVY BODY,
OR
Extreme
In Lettering
The Best
Suited to
& More.
COMMERCIAL ADVERTISING.

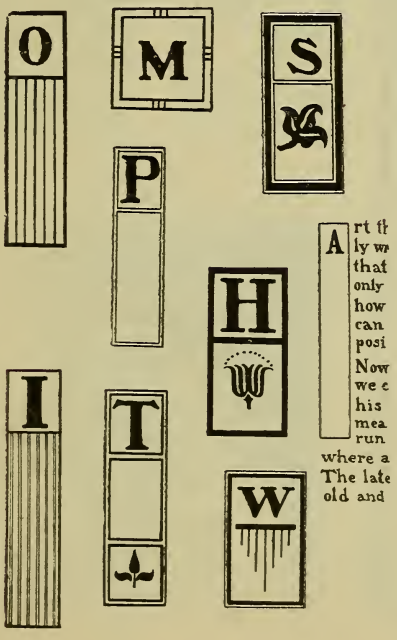
INITIAL LETTERS.

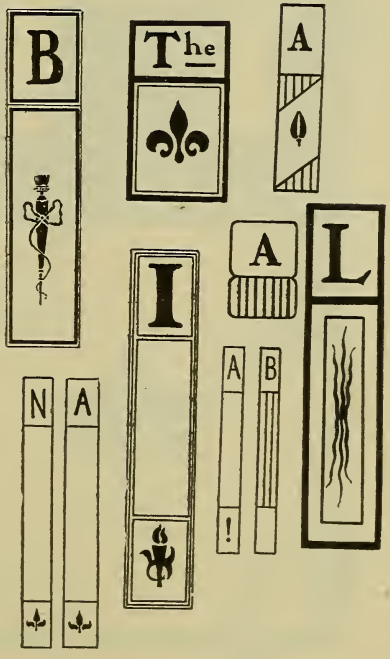
THESE are usually placed at the beginning of a chapter. Sometimes each main section of a chapter is honored with an initial letter.

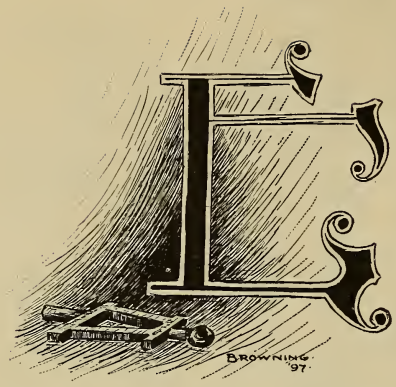
The same style is generally retained throughout the book as well as on the cover, a type being selected and used for the complete work.



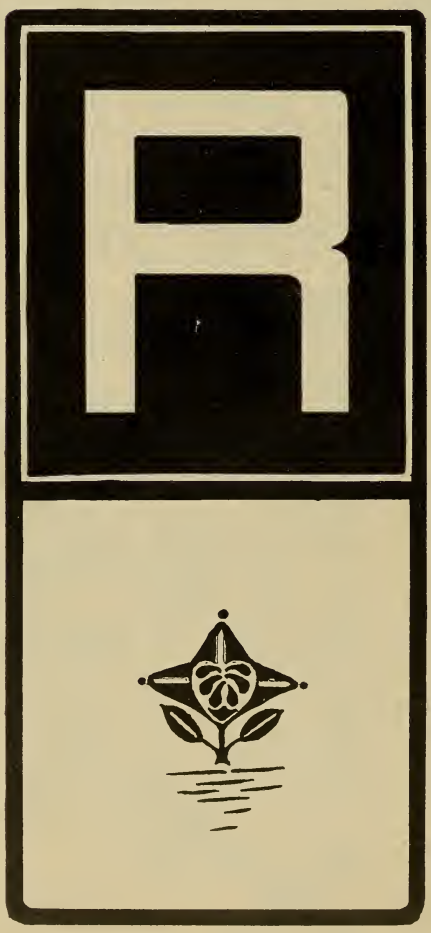

INLAND TYPE IS
Some possible and impossible rule effects for Initials with the INLAND TYPE FOUNDERS CO.'S Blanchard Series Caps & Ornaments. Being done by pen & ink as a study for effective Initial display.
Besides demonstrating the use of Blanchard Face for Initial, the illustrations serve to prove that the Up-to-Date compositor can profitably utilize this method for the study of rule effects.
No real artistic ability is required, only the ability to use a pen or pencil & straight-edge.
If you cannot draw the initial find the letter you desire, ink it, get an impression on a sheet of white card-board, then proceed to draw your rule about the letter, using care to imitate the Point required, remembering that the size of the face of the rule makes or mars the artistic effect desired.
THE BEST TYPE.



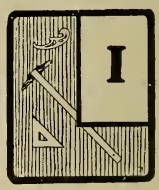


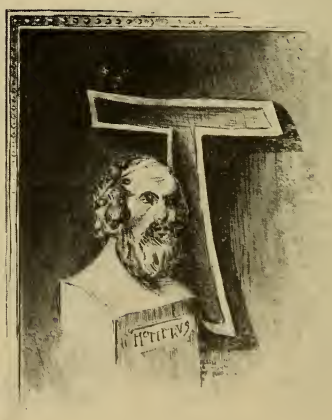

BROWNING
'97

E. KING



W


I

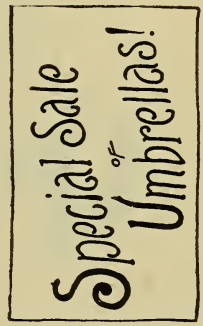


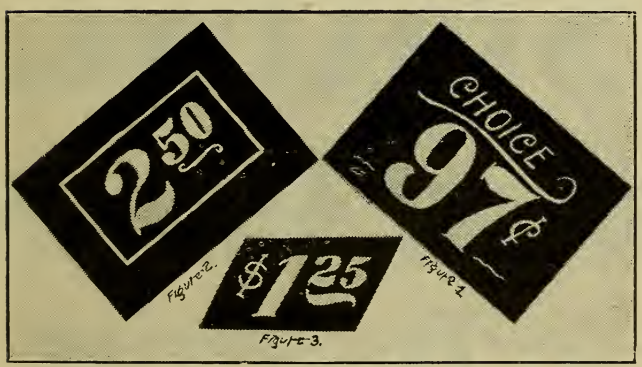
HEADINGS AND CARDS.

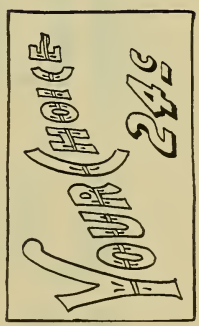
THE same style of type should be used for the headings throughout a book, magazine or catalog. Page headings may be plain or ornamental.

HOME STUDY.

W. T. SHOUP,
IRVING, ILLS.


Special Sale
of
Umbrellas!


250
Figure 2.
CHOICE
97¢
Figure 1.
$1.25
Figure 3.


Your Choice
24¢

PATENT
DRAWING

QUESTIONS AND ANSWERS.

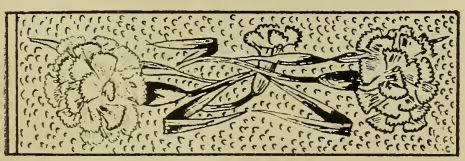
ILLUSTRATING.

CURRENT TOPICS

PATENT DRAFTING.

SCROLLS AND TAIL PIECES.

A few scrolls and tail-pieces are here shown.



TITLES OF DRAWINGS.

THE title of the drawing is the inscription describing what the drawing is supposed to represent, the name of the firm for whom made and the maker and date.

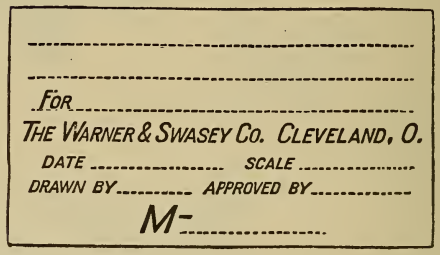
This title may be ornamental or plain as the draftsman thinks best.

In some drafting rooms the space allotted for the title is filled by a few words and lines put on by a rubber stamp, and some additional data added by the draftsman.

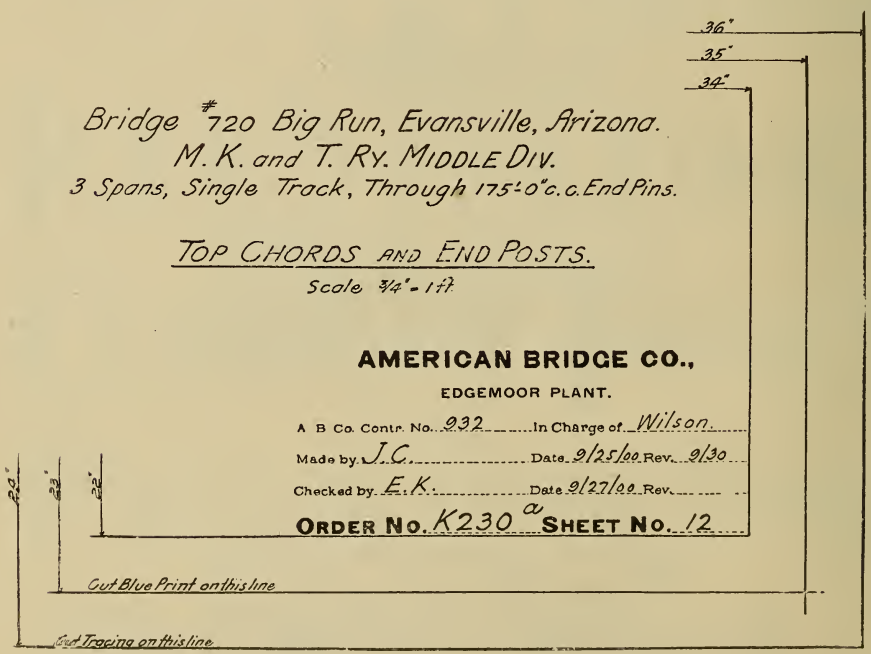
A few forms are here shown to give an idea of the different arrangement of wording.

A title should first be sketched out on a piece of paper to get the arrangement and number of words, and then the style of lettering may be selected.

The lettering is put in so as to lie



equally on each side of the center line, as shown in the following illustrations, which are shown half skeleton and half finished.


36"
35"
34"
Bridge #720 Big Run, Evansville, Arizona.
M. K. and T. Ry. Middle Div.
3 Spans, Single Track, Through 175'-0" c. c. End Pins.
TOP CHORDS AND END POSTS.
Scale 3/4" - 1ft.
AMERICAN BRIDGE CO.,
EDGEMOOR PLANT.
A B Co. Contr. No. 932 In Charge of Wilson
Made by J.C. Date 9/25/00 Rev. 9/30
Checked by E.K. Date 9/27/00 Rev.
ORDER No. K230 a SHEET No. 12
24"
23"
22"
Cut Blue Print on this line
End Tracing on this line

Showing title put on with stamp and pen, also sizes of border lines of Drawing, Tracing and Blue-Print.

L. of C.

MAP OF MAHONING COUNTY AND PART OF TRUMBULL COUNTY OHIO.

DETAILS OF

Floor Arch, Columns & Girders,

U. S. GOVERNMENT WAREHOUSE,

ROCK ISLAND ARSENAL,

ROCK ISLAND ILL.

GENERAL PLAN

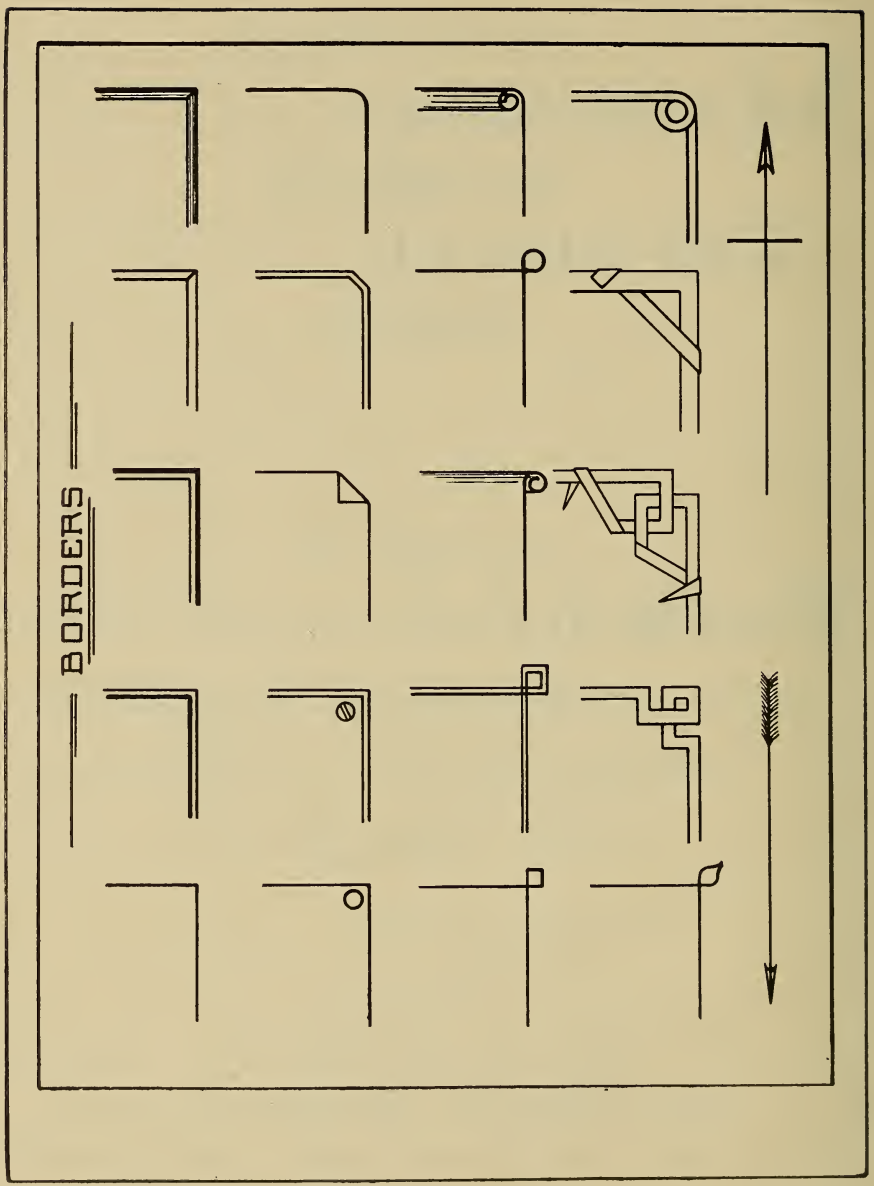
HOT-BED, 28" BEAM-MILL

GARRETT-CROMWELL-ENG., CO.

CLEVELAND, O

OCT, 1904. SCALE-$\frac{1}{4}$"=1-0"

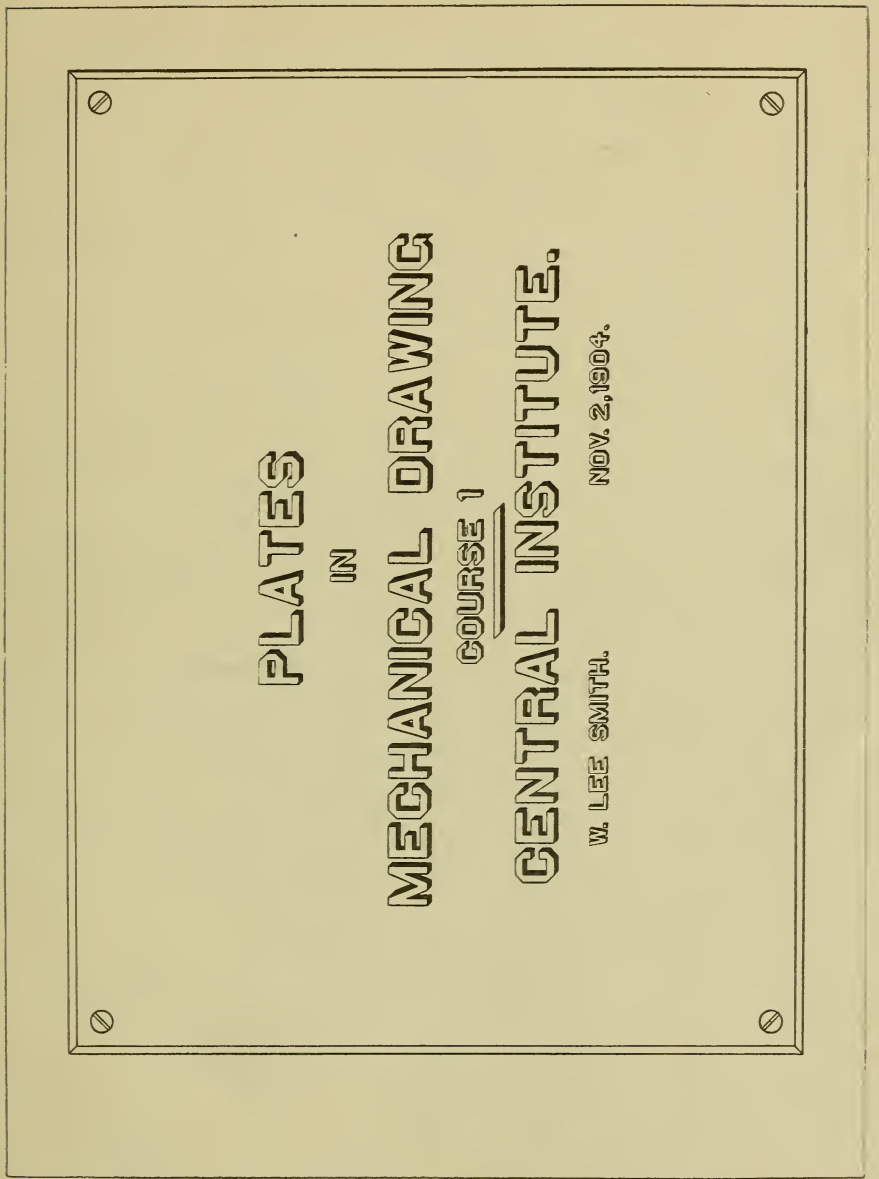
FANCY BORDERS.



Some fancy border lines are here shown that can be used for general drawings and title sheets:

A TITLE PLATE.

This plate is on paper, 14x19, with 2″ margin on left, and 1″ on right end and 1″ on top and bottom.



The type for this title plate was taken from pages 6 and 7, and the blocks each $\frac{3}{16}$ inch for the first, third and fifth rows, and $\frac{1}{8}$ inch each for the others.

APR 24 1905

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